

REMARKS

This responds to the Office Action mailed on December 14, 2006.

Claims 1, 8, 17, 24 and 28 are amended and claims 3-5 and 18 are canceled. As a result, claims 1, 2, 6-17 and 19-30 are now pending in this application.

§102 Rejection of the Claims

Claims 1-4, 8-12 and 14-27 were rejected under 35 USC § 102(e) as being anticipated by Yeh (U.S. 6,489,682 B1). The Applicant respectfully traverses this rejection and requests the Office to consider the following.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” (*Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987), M.P.E.P. §2131, 8th Ed., Rev. 4).

The Office Action asserts Yeh teaches an interconnect filling the via (claim 4). Applicant respectfully disagrees. Yeh details a hollow via by virtue of the cross-hatched via cylinders, e.g., 103v, 104v, and 105v. Consequently, the space inside the cylinder is space and not structure. Because Yeh does not anticipate claims 1, 8 and 28 as amended, withdrawal of the rejections is respectfully requested. Claims 2-7 depend from claim 1 and are therefore also not anticipated. Claims 9-16 depend from claim 8 and are therefore also not anticipated. Claims 29 and 30 depend from claim 28 and are therefore also not anticipated.

The Office Action asserts Yeh teaches the limitation of process claim 17, in particular, but not limited to “wherein forming ceases upon contact with the first wire-bond pad”. Applicant respectfully disagrees. Yeh gives no teaching of how the via is formed, let alone that such formation wherein “forming ceases upon contact with the first wire-bond pad”. Because Yeh does not anticipate claims 17 and 24 as amended, withdrawal of the rejections is respectfully requested. Claims 18-23 depend from claim 17 and are therefore also not anticipated. Claims 25-27 depend from claim 24 and are therefore also not anticipated.

§103 Rejection of the Claims

Claims 5-7 were rejected under 35 USC § 103(a) as being unpatentable over Yeh in view of Hashemi (U.S. 6,252,178 B1). Applicant has canceled claim 5. Applicant respectfully traverses the rejection and requests the Office to consider the following.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (M.P.E.P. § 2143 8th Ed, Rev.1).

The Office Action admits that Yeh does not teach the via includes an interconnect filling the via. The Office looks to Hashemi to fill this void. But Hashemi's structure is not an interconnect in a via that penetrates the upper protective layer and the lower protective layer. To apply Hashemi's structure to Yeh, would result in an impossibility as Hashemi has a core layer that prevents the filled via from penetrating a lower protective layer. Because all the claim limitations are not found in the cited references, withdrawal of the rejections is respectfully requested.

Claim 13 was also rejected under 35 USC § 103(a) as being unpatentable over Yeh in view of Walton (U.S. 5,936,844). The Office Action admits that Yeh does not teach the limitations of claim 13. But where neither Yeh nor Walton teach the limitation of claim 8, from which claim 13 depends, that via that penetrates the upper protective layer and the lower protective layer, all the claim limitations are not found in the cited references, withdrawal of the rejections is respectfully requested.

Claims 28-30 were also rejected under 35 USC § 103(a) as being unpatentable over Walton in view of Yeh. The Office Action admits that Walton does not teach all the claim limitations of claim 28. But where neither Yeh nor Walton teach the limitation of claim 8, from which claim 13 depends, that via that penetrates the upper protective layer and the lower protective layer, all the claim limitations are not found in the cited references, withdrawal of the rejections is respectfully requested.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney ((801) 278-9171) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Reservation of Rights

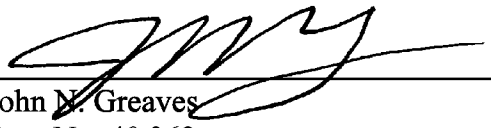
In the interest of clarity and brevity, Applicant may not have addressed every assertion made in the Office Action. Applicant's silence regarding any such assertion does not constitute any admission or acquiescence. Applicant reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicant does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicant timely objects to such reliance on Official Notice, and reserves all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicant reserves all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of

priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

Respectfully submitted,

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By /  /
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